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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,189	11/07/2005	Brian Edward Brooker	M02B148	3687

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EXAMINER	
BEKKER, KELLY JO	
ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
12/09/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/525,189	BROOKER ET AL.	
	Examiner	Art Unit	
	Kelly Bekker	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *23-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23-41* is/are rejected.

7)☒ Claim(s) *38* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/22/05 & 4/29/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I, claims 23-41 in the reply filed on November 17, 2008 is acknowledged.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 38 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 38 recites, "highly surface active water soluble emulsifier". As it is unclear as to how surface active the emulsifier must be in order to be considered "highly surface active", it is unclear as to which emulsifiers would be considered included in the instantly claimed limitation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 23-33, 37, and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Delany (EP 0147483) in view of Brooker (US 2001/0038872 A1).

Delany teaches of a method of making ice cream comprising homogenizing a mix of ingredients, aging the mix to precrystalized particles of edible fat which each contain a multiplicity of individual crystals so as to form a dispersion, gasifying, and freezing the dispersion so as to form an ice cream (abstract and page 5 line 13 through page 6 line 15). Delany teaches that the mix comprises an emulsifier, including monoglycerides,

sugar, non-fat milk solids (NFMS), and hydrogenated vegetable oil (page 9 lines 2-7, page 12 lines 26-29, page 16 lines 31-34, and page 17 lines 20-21). Delany teaches that the mix may be pasteurized before homogenization and aging, i.e. before the fat is precrystalized (page 13 lines 1-2). Delany teaches that the fat emulsion diameter is 1.8-21 microns (page 10 all). Delany teaches that the precrystalized particles of edible fat take the form of a globule comprising a mass of crystals of fat with entrapped pockets of oil (page 7 lines 15-34). Delany teaches that it is desirable for small fat crystals to be formed in the ice cream because they retain the product when the product is exposed to room temperature, thus obtaining products with less iciness, a smoother texture, better overrun better exposed to heat shock, and which has improved shelf life stability (page 7 lines 15-34, page 13 lines 12-22, and page 2 lines 14-24). Delany teaches that the mixture is homogenized to reduce the size of the fat globules (page 9 lines 30-32). Delany teaches that the mixture is aged for 2-12 hours for form crystallization of the fat (page 13 lines 12-22). Delany teaches that the fat is injected into an aqueous mix, i.e. an aqueous ice cream precursor containing the other ice cream ingredients (page 9 lines 26-30). Delany teaches that the emulsifiers are combined with the fat prior to the fat being precrystalized or combined with the other ice cream ingredients (page 12 lines 26-34).

Delany is silent to the edible fat particles are precrystalized cryogenically or as provided at below ambient temperature for freezing as recited in claims 23 and 41, to the precrystalized fat as blended with an aqueous ice cream precursor phase as recited in claim 23, to the liquid cryogen as directed at fine particles of edible fat in a molten state as recited in claim 24, to the liquid cryogen as a spray as recited in claim 25, to the liquid cryogen as nitrogen as recited in claim 26, to the ice cream precursor phase as pasteurized before being blended with the precrystalized fat particles as recited in claim 32, and to the dispersion as gasified and frozen without being subject to homogenization or aging as recited in claim 40.

Brooker teaches of a method of forming a food product which includes hydrogenated fat (abstract). Brooker teaches that the food composition or the fat which is later added to the food composition are in liquid spray form and are contacted with

cryogen so as to cool the liquid product (paragraphs 0010 and 0018). Brooker teaches that the cryogen is sprayed in liquid form (paragraphs 0031 and 0032). Brooker teaches that the main aim of the invention is to provide small crystals of liquid fat corresponding to a large number of these crystals dispersed in a liquid phase of the fat structure (paragraph 0011). Brooker teaches that the product produced has a minimum crystal size, including a crystal size ideally less than 0.1 micron and that the final product with the fat crystals has an improved uniformity (paragraphs 0007, 0016, 0017, and 0022). Brooker teaches that the method saves time as no additional time is needed for crystallization to continue over an extended period of time, i.e. aging, (paragraphs 0008, 0020, and 0021). Brooker teaches that the spray of liquid fat is advantageously formed by atomization, preferably by urging the liquid fat through an atomizing nozzle in communication with an external source of gas, including nitrogen (paragraph 0013).

Regarding the edible fat particles are precrystalized cryogenically or as provided at below ambient temperature for freezing, wherein liquid cryogen nitrogen is sprayed and is directed at fine particles of edible fat in a molten state, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the precrystalized particles of fat, which were precrystalized cryogenically, i.e. as provided at below ambient temperature for freezing, wherein liquid cryogen nitrogen is sprayed and is directed at fine particles of edible fat in a molten state in the ice cream taught by Delany in view of Brooker. One would have been motivated to do so because Delany teaches that it is desirable to have small crystallized particles of fat in the ice cream and because Brooker teaches of a method of forming a precrystalized fat with minimal crystallize size.

Regarding the precrystalized fat as blended with an aqueous ice cream precursor phase, it would have been obvious to one of ordinary skill in the art at the time the invention was made to precrystalize the fat prior to or after blending with the other food ingredients, including the other ice cream ingredients combined, which would form an ice cream precursor phase, as taught by Brooker, depending on which was more convenient. For example, it would have been obvious one of ordinary skill in the art at the time the invention was made to precrystalize the fat prior to blending it with the other

ingredients, if the equipment to precrystalize the fat was contained in a different location from the other ice cream ingredients and the other ice cream processing equipment and it would have been obvious to one of ordinary skill in the art at the time the invention was made to mix and pre-homogenize the other ingredients since the precrystalized fat is able to form a homogenize product without being homogenized, as taught by Brooker. To switch the order of performing process steps, i.e. the order of the addition of the ingredients into the final mixture, would be obvious absent any clear and convincing evidence and/or arguments to the contrary (MPEP 2144.04 [R-1]). "Selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results"

Regarding the ice cream precursor phase as pasteurized before being blended with the precrystalized fat particles, Delany teaches that the mix is pasteurized before the fat is precrystalized and since the method of Delany in view of Brooker forms the precrystalized fat prior to mixing with the ice cream precursor phase, it would have been obvious to one of ordinary skill in the art at the time the invention was to pasteurize the mix or ice cream precursor phase prior to being blended with the precrystalized fat particles.

Regarding the dispersion as gasified and frozen without being subject to homogenization, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the dispersion to be gasified and frozen without being subject to homogenization because Delany teaches that homogenization is used to form small fat globules and Brooker teaches that precrystalized particles that are of minimal size and when used with food form a homogenous mixture; thus by using the precrystalized fat particles as taught by Brooker, the need for homogenization is alleviated and to remove such a step would reduce the cost of production by reducing production time, as taught by Brooker.

Regarding the dispersion as gasified and frozen without being subject to aging, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the dispersion to be gasified and frozen without being subject to aging, because Delany teaches that aging is used to form precrystalized fat for 2-12 hours,

and Brooker teaches that precrystalized particles can be formed in minimal time that do not require aging and that are of minimal size; thus by using the precrystalized fat particles as taught by Brooker, the need for aging is alleviated and to remove such a step would reduce the cost of production by reducing production time, as taught by Brooker.

Claims 24-36 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Delany (EP 0147483) in view of Brooker (US 2001/0038872 A1), further in view of Jonas (US 4012533).

Delany in view of Brooker teaches of a method of making ice cream comprising precrystalized particles of edible fat and emulsifiers, including monoglycerides as discussed above. The references are silent to the emulsifier as a lipophilic emulsifier, including the saturated monoglycerides, glycerol monostearate as recited in claims 34-36 and to the emulsifier as highly surface active, water soluble as recited in claim 38.

Jonas teaches of an ice cream type products (abstract). Jonas teaches that selection of a particular emulsifier for a fat protein system, such as the ice cream taught by Delany, may be readily determined by those skilled in the art depending on the physical properties desired in the finished product (Column 4 lines 35-40). Jonas teaches that a monoglycerides and/or SPANS, i.e. a glycerol monostearate which is a saturated monoglyceride, is used when the fat and protein emulsions are mixed and directly whipped.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a particular emulsifier depending on the properties desired in the final product as taught by Jones. To do so would be routine determination and would not impart a patentable distinction to the claims. One would have been further motivated to use a glycerol monostearate which is a saturated monoglyceride and a lipophilic emulsifier in the invention was taught by Delany in view of Brooker since the fat and protein (contained in NFMS) are mixed and directly whipped, as taught by Jones. One would have been further motivated to use a highly surface action water soluble emulsifier in the premix ingredients, in order to form a homogenous dispersion

to which the precrystalized fat would be dispersed in. To select well known ingredients for their intended function does not impart a patentable distinction to the claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Feldpausch (US 5098731) teaches of a process of forming an ice cream like product, including cryogenic freezing of the food ingredients, aerating the cryogenically frozen ingredients, and refreezing the ingredients, the only difference is Feldpausch teaches that the composition does not contain fat.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly Bekker whose telephone number is (571) 272-2739. The examiner can normally be reached on Monday through Friday 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lien Tran/
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Art Unit 1794

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